Station 1

Write the complete balanced chemical reactions for the following:

a) Potassium hydroxide and hydrogen are produced when potassium metal reacts with water.

b) The reaction between magnesium metal and copper(II) sulphate.

c) Decomposition of mercury(II) oxide to its elements.

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$2\ Al + 3\ F_2 \rightarrow 2\ AlF_3$

a) What is the molar mass of each of the compounds in the reaction above?

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200.0 g of NaCl are dissolved in 100. mL of water. Calculate the molarity of the solution.

How many grams of AgCl are required to prepare 150.0 mL of 0.200 M solution?

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Station 5

In three trials of a titration, 36.9 mL, 34.4 mL, and 34.3 mL of 0.200 M NaOH were used to neutralize a 25.0 mL sample of H_2SO_4.

a) Write a balanced chemical reaction for this neutralization.

b) What was the average volume of NaOH used?

c) Calculate the molarity of the acid.

Station 5

In three trials of a titration, 36.9 mL, 34.4 mL, and 34.3 mL of 0.200 M NaOH were used to neutralize a 25.0 mL sample of H_2SO_4.

a) Write a balanced chemical reaction for this neutralization.

b) What was the average volume of NaOH used?

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Station 6

200.0 mL of 0.150 M $AlCl_3$ is added to 200.0 mL 0.250 M $BaCl_2$. Calculate the $[Ba^{2+}]$, $[Al^{3+}]$ and the $[Cl^-]$ immediately after mixing the two solutions.

Station 6

200.0 mL of 0.150 M $AlCl_3$ is added to 200.0 mL 0.250 M $BaCl_2$. Calculate the $[Ba^{2+}]$, $[Al^{3+}]$ and the $[Cl^-]$ immediately after mixing the two solutions.